

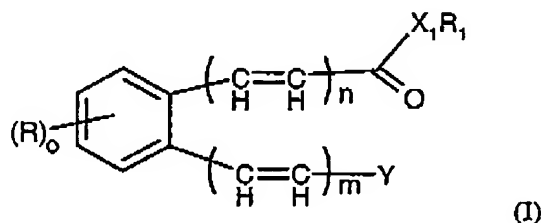
AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions including the claims in the application.

Listing of the Claims:

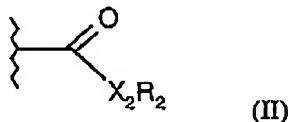
CLAIMS:

1. (Original) A compound of formula (I)

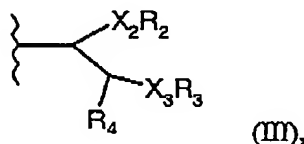


in which:

Y is a group of formula (II)



or of formula (III)



R is

H, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl or C₅-C₁₄-aryl, halogen, -CN, -OH, -O-C₁-C₆-alkyl, -O-C₂-C₆-alkenyl, -O-C₅-C₁₄-aryl, -O-C₂-C₆-alkynyl, -NH₂, -NH-C₂-C₆-alkyl, -NH-C₂-C₆-alkenyl, -NH-C₂-C₆-alkynyl, -NH-C₅-C₁₄-aryl, -N-(C₁-C₆-alkyl)₂, -N-(C₂-C₆-alkenyl)₂, -N-(C₂-C₆-alkynyl)₂, -N(C₅-C₁₄-aryl)₂, -NH[-C(=O)-(C₁-C₆-alkyl)], -NH[-C(=O)-(C₅-C₁₄-aryl)], -NH-O-R₁, -SH, -S-C₁-C₆-alkyl, -S-C₂-C₆-alkenyl, -S-C₁-C₆-alkynyl or -O-C₅-C₁₄-aryl, wherein the abovementioned substituents are unsubstituted or substituted, one or more times, by a substituent independently selected from C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₅-C₁₄-aryl, where alkyl, alkenyl, alkynyl

and aryl may be independently unsubstituted or substituted, once or twice, by a substituent independently selected from $-\text{OH}$, $=\text{O}$, $-\text{O}-\text{C}_1-\text{C}_6\text{-alkyl}$, $-\text{O}-\text{C}_2-\text{C}_6\text{-alkenyl}$, $-\text{O}-\text{C}_5-\text{C}_{14}\text{-aryl}$, $-\text{C}_5-\text{C}_{14}\text{-aryl}$, $-\text{NH}-\text{C}_1-\text{C}_6\text{-alkyl}$, $-\text{NH}-\text{C}_2-\text{C}_6\text{-alkenyl}$, $-\text{NH}_2$, and halogen, wherein alkyl, alkenyl, alkynyl and aryl can be further substituted by a $-\text{CN}$, amide or oxime,

R_1 , R_2 , R_3 and R_4 are, independently of each other,

H , $\text{C}_1-\text{C}_6\text{-alkyl}$, $\text{C}_2-\text{C}_6\text{-alkenyl}$, $\text{C}_2-\text{C}_6\text{-alkynyl}$ or $\text{C}_5-\text{C}_{14}\text{-aryl}$,

in which alkyl, alkenyl, alkynyl and aryl are unsubstituted or substituted, once or twice, by a substituent independently selected from $-\text{OH}$, $-\text{O}-\text{C}_1-\text{C}_6\text{-alkyl}$, $-\text{O}-\text{C}_2-\text{C}_6\text{-alkenyl}$, $-\text{O}-\text{C}_5-\text{C}_{14}\text{-aryl}$, $-\text{C}_5-\text{C}_{14}\text{-aryl}$, $-\text{NH}-\text{C}_1-\text{C}_6\text{-alkyl}$, $-\text{NH}-\text{C}_2-\text{C}_6\text{-alkenyl}$, $-\text{NH}_2$ and halogen, in which alkyl, alkenyl, alkynyl and aryl are independently unsubstituted or substituted, once or twice, by a substituent independently selected from $-\text{OH}$, $=\text{O}$, $-\text{O}-\text{C}_1-\text{C}_6\text{-alkyl}$, $-\text{O}-\text{C}_2-\text{C}_6\text{-alkenyl}$, $-\text{O}-\text{C}_5-\text{C}_{14}\text{-aryl}$, $-\text{C}_5-\text{C}_{14}\text{-aryl}$, $-\text{NH}-\text{C}_1-\text{C}_6\text{-alkyl}$, $-\text{NH}-\text{C}_2-\text{C}_6\text{-alkenyl}$, $-\text{NH}_2$ and halogen, in which said alkyl, alkenyl, alkynyl and aryl can be further independently substituted by a $-\text{CN}$, amide or oxime,

X_1 , X_2 and X_3 are, independently of each other, selected from

$-\text{CH}_2-$, $-\text{CHR}-$, $-\text{NH}-$, $-\text{N}(\text{C}_1-\text{C}_6\text{-alkyl})-$, $-\text{N}(\text{C}_2-\text{C}_6\text{-alkenyl})-$, $-\text{N}(\text{C}_2-\text{C}_6\text{-alkynyl})-$, $-\text{N}[-\text{C}(=\text{O})-(\text{C}_1-\text{C}_6\text{-alkyl})]-$, $-\text{N}[-\text{C}(=\text{O})-(\text{C}_5-\text{C}_{14}\text{-aryl})]-$, $-\text{N}(\text{C}_5-\text{C}_{14}\text{-aryl})-$, $-\text{N}(\text{O}-\text{R})-$, $-\text{O}-$ and $-\text{S}-$,

n and m are, independently of each other,

2, 3, 4 or 5, and

o is

0, 1, 2 or 3,

excluding, however, compounds of formula (I) in which

o is 0,

n is 2,

m is 2 or 3,

X_2 and X_3 are O , and

R_2 and R_3 are C_2H_5 ,

and all double bonds possess the trans-configuration,

and/or stereoisomeric forms of compounds of formula (I) and/or a mixture of these forms in any ratio, and/or physiologically tolerated salts of compounds of formula (I).

2. (Original) A compound of formula (I) as claimed in claim 1, wherein at least one polyene group contains at least one *cis* double bond.

3. (Original) A compound of formula (I) as claimed in claim 1, wherein

R is H,

R₁ is H or C₁-C₆-alkyl,

R₂ is H or C₁-C₆-alkyl,

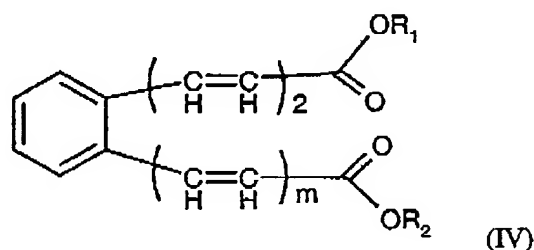
R₃ is H or C₁-C₆-alkyl,

R₄ is C₁-C₆-alkyl, and

X₁ and X₂ are -O-,

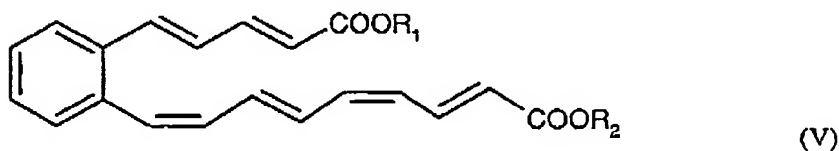
and the physiologically tolerated salts thereof.

4. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (IV)



wherein m is 3 or 4, and R₁ and R₂ are as defined in claim 1 and the physiologically tolerated salts thereof.

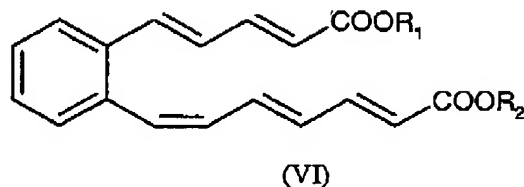
5. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (V)



wherein R₁ and R₂ are as defined in claim 1.

6. (Original) A compound of formula (V) as claimed in claim 5, wherein each of R₁ and R₂ is H.

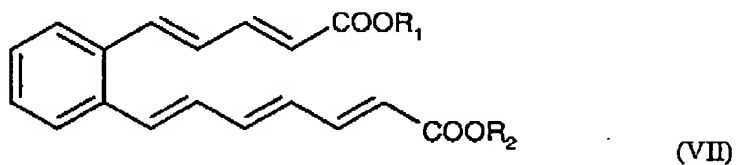
7. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (VI)



wherein R1 and R2 are as defined in claim 1.

8. (Original) A compound of formula (VI) as claimed in claim 7, wherein R₁ and R₂ are each H.

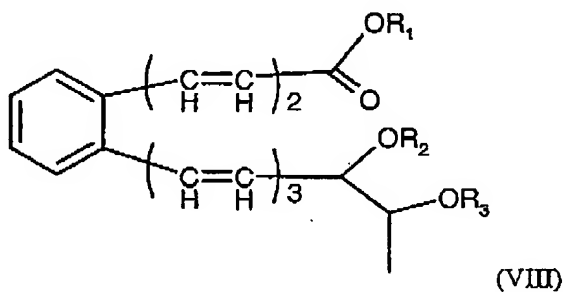
9. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (VII)



wherein R1 and R2 are as defined in claim 1.

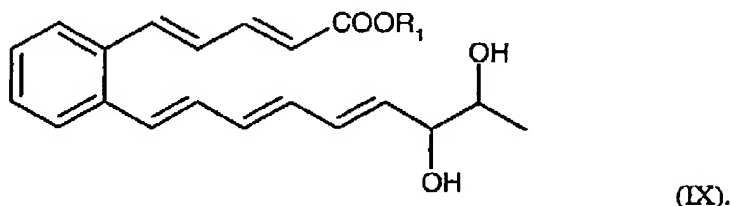
10. (Original) A compound of formula (VII) as claimed in claim 9, wherein R₁ and R₂ are each H.

11. (Original) A compound of formula (I) as claimed in claim 1, which is a compound of formula (VIII)



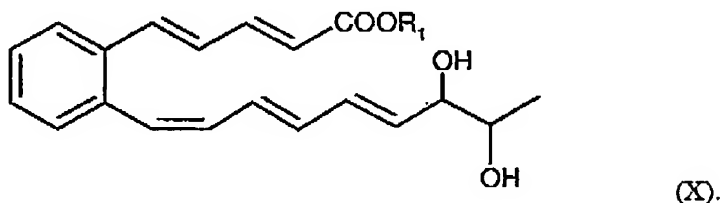
wherein R₁ and R₂ are as defined in claim 1.

12. (Original) A compound of formula (VIII) as claimed in claim 11, which is a compound of formula (IX)



13. (Original) A compound of formula (IX) as claimed in claim 12, wherein R₁ is H.

14. (Original) A compound of the formula (VIII) as claimed in claim 11, which is a compound of formula (X)



15. (Original) A compound of formula (X) as claimed in claim 14, wherein R₁ is H.

16. (Currently Amended) A process for preparing a compound of formula (I) as claimed in claim 1, which comprises

1. culturing the microorganism *Actinomycetales* sp. DSM 14865, or one of its variants and/or mutants, in an aqueous nutrient medium until one or more of the compounds serpentemycin A, B, C and D accrues in the culture broth, and
2. isolating and purifying said serpentemycin A, B, C and/or D;
- ~~3. where appropriate, using a suitable reagent to convert said serpentemycin A, B, C or D into another compound of formula (I);~~
- ~~4. and, where appropriate, converting said compound of formula (I) into a pharmacologically tolerated salt.~~

17. (Cancelled) The process as claimed in claim 16, wherein the suitable reagent is an alkylating agent.

18. (Currently Amended) A process as claimed in claim 16, which comprises fermenting the microorganism *Actinomycetales* sp. DSM 14865, or one of its variants and/or mutants, in a culture medium which contains a carbon and nitrogen source and also the customary inorganic salts and trace elements, isolating serpentemycins A, B, C and/or D and, optionally where appropriate, converting said serpentemycins A, B, C and/or D into a pharmacologically tolerated salt.

19. (Original) A process as claimed in claim 16, wherein the fermentation is carried out under aerobic conditions at a temperature of between 20 and 35°C and at a pH between 4 and 10.

20. (Currently Amended) A method for the treatment and/or prophylaxis of an infectious bacterial disease comprising administering to a patient in need thereof an antibacterially effective amount of a compound of claim 1.

21. (Currently Amended) A pharmaceutical composition for the treatment and/or prophylaxis of infectious bacterial diseases comprising at least one compound as claimed in claim 1 and one or more physiologically suitable auxiliary substances.

22. (Currently Amended) A process for producing a pharmaceutical composition as claimed in claim 21, which comprises combining at least one compound as claimed in claim 1, with one or more physiologically suitable auxiliary substances, into a suitable form for administration.

23. (Currently Amended) The isolated microorganism *Actinomycetales* sp., DSM 14865.